

A Vise Jack, Version 1.0

By R. G. Sparber

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Clamping small parts in a light weight vise can be less than satisfactory. The movable jaw tend to tilt providing uneven clamping force.



One solution is to add a jack screw at one end of the vise. Since I'm right handed, I put the jack screw on the left end.

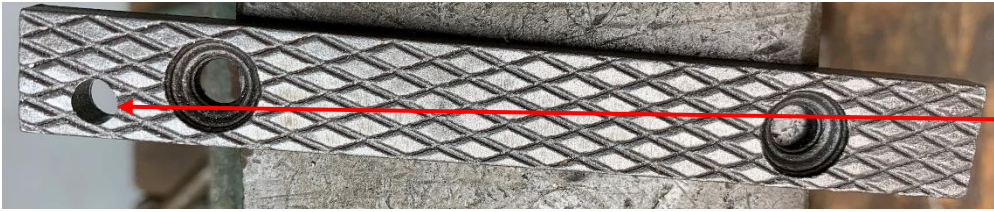
I ran the jack screw through the fixed jaw so it would not be in my way as I turned the vise's handle.

One challenge in drilling and tapping the fixed jaw is that the only flat surface is on the jaw plate's face.



I started by removing the movable jaw assembly. Then I marked the location of the hole to be drilled in the fixed jaw plate.

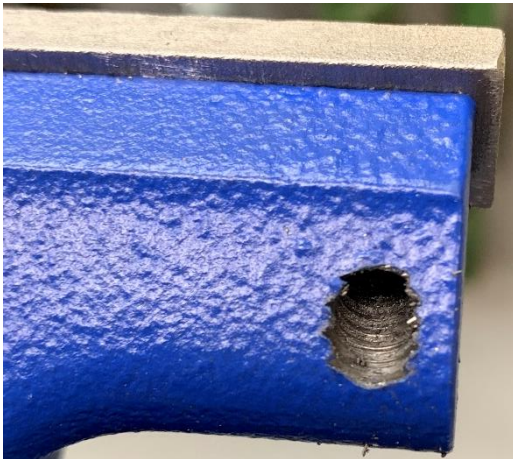
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Using my drill press, I cut a hole with a #7 (0.201 inches in diameter) drill.



After mounting the jaw plate, I used the hole as a guide with the #7 drill mounted in my hand drill. Then I opened out the jaw plate's hole with a F drill (0.257 inches in diameter). This insures that the F drill hole is perfectly aligned with the #7 hole.



I then passed my 1/4-20 tap through the jaw plate and cut threads in the casting behind it. Note that the threads broke out the back side. Going in from this back side with the tap would have been near impossible.



The threaded hole is usable but did not come out as perpendicular to the jaw face as desired. I should have used my



bench block to help align the hand drill.

I welcome your comments and questions.

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Rick Sparber

Rgsparber.ha@gmail.com

Rick.Sparber.org